BEFORE THE
PUBLIC SERVICE COMMISSION
OF THE STATE OF DELAWARE

IN THE MATTER OF THE APPLICATION OF DELMARVA POWER & LIGHT COMPANY FOR AN INCREASE IN ELECTRIC BASE RATES AND MISCELLANEOUS TARIFF CHANGES (FILED SEPTEMBER 18, 2009)	))))	PSC DOCKET NO. 09-414
IN THE MATTER OF THE APPLICATION OF DELMARVA POWER & LIGHT COMPANY FOR APPROVAL OF A MODIFIED FIXED VARIABLE RATE DESIGN FOR ELECTRIC RATES (FILED JUNE 25, 2009)	)))))	PSC DOCKET NO. 09-276T

Direct Testimony and Exhibits of Howard Solganick

On Behalf of the Staff of the Delaware Public Service Commission

February 10, 2010

Qualifications

Q. **Please state your name, position and business address.**

A. My name is Howard Solganick. I am a Principal at Energy Tactics & Services, Inc. My business address is 810 Persimmon Lane, Langhorne, PA 19047.

Q. **Please summarize your qualifications and experience.**

A. I am licensed as a Professional Engineer in Pennsylvania (active) and New Jersey (inactive). I hold a Professional Planner's license (inactive) in New Jersey. I served on the Electric Power Research Institute's Planning Methods Committee and on the Edison Electric Institute Rate Research Committee. I have been appointed as an arbitrator in cases involving a pricing dispute between a municipal entity and an on-site power supplier and a commercial landlord-tenant case concerning submetering and billing. I also previously served on two New Jersey Zoning Boards of Adjustment as Chairman and a Pennsylvania Township Planning Commission as Chairman and member.

I have been actively engaged in the utility industry for over 34 years, holding utility management positions in generation, rates, planning, operational auditing, facilities permitting, and power procurement. I have delivered expert testimony in utility planning and operations, including rate design and cost of service, tariff administration, generation, transmission, distribution and customer service operations, load forecasting, demand side management, capacity and system planning, and regulatory issues.

I have also led and/or participated in consulting projects to develop, design, optimize, and implement both traditional utility operations and ecommerce businesses. These projects focused on the marketing, sale and delivery of retail energy, energy related products and services, and support services provided to utilities and retailers.

I have been engaged by clients to review proposed distributed generation contracts and the operation and integration of generating assets within power pool operations, and have advised the Board of Directors of a public power utility consortium. For a period of four years I was engaged by a multiple site commercial real estate organization to manage its solicitation for the purchase of retail energy. As a subcontractor, I have performed management audits for the Connecticut Department of Public Utility Control and the Public Utilities Commission of Ohio. I also provide (as a subcontractor) support for the Staff and Commissioners of the District of Columbia Public Service Commission for an electric rate case and have previously provided similar services to the D.C. Commission.

I have also been engaged to review utility performance before, during and after outages resulting from major storms including hurricane Ike.

From 1994 to the present, I have been President of Energy Tactics & Services, Inc. From 1996 to 1998, I was a Managing Consultant for AT&T Solutions. From 1990 to 1994, I was Vice President of Business Development for Cogeneration Partners of America. In that position, I was responsible for the development of independent power facilities, most of which were fueled by natural gas and oil.

From 1978 to 1990, I held progressively increasing positions of responsibility with Atlantic City Electric Company in generation, regulatory, performance, planning, major procurement, and permitting areas.

From 1971 to 1978, I was an Engineer or Project Engineer for Univac, Soabar, Bickley Furnaces and deLaval Turbine, designing card handling equipment, tagging and printing machines, high temperature industrial furnaces, and utility and industrial power generation equipment, respectively.

I received a Bachelor of Science in Mechanical Engineering (minor in Economics) from Carnegie-Mellon University and a Master of Science in Engineering Management (minor in Law) from Drexel University. I have also taken courses on arbitration and mediation presented by the American Arbitration Association, scenario planning presented by the Electric Power Research Institute and load research presented by the Association of Edison Illuminating Companies. I have also taken courses in zoning and planning theory, practice and implementation in both New Jersey and Pennsylvania.

Q. **Have you previously submitted testimony in regulatory proceedings?**

A. Yes. I have testified and/or presented testimony (summarized in Exhibit HS-1) before the following regulatory bodies.

- Delaware Public Service Commission
- Georgia Public Service Commission
- Jamaica (West Indies) Electricity Appeals Tribunal
- Maine Public Utilities Commission
- Maryland Public Service Commission
- Michigan Public Service Commission
- Missouri Public Service Commission
- New Jersey Board of Public Utilities
- Public Utilities Commission of Ohio
- Pennsylvania Public Utility Commission
- Public Utility Commission of Texas

<u>Direct Testimony</u>

Q. **For whom are you appearing in this proceeding?**

A. I am appearing on behalf of the Staff of the Delaware Public Service Commission ("Staff").

Q. **What is the purpose of your testimony?**

A. My testimony analyzes the Company's Customer Class Cost of Service Study ("CCCOSS"), the proposed revenue allocation between classes, the proposed fixed variable rate design, the mechanics of the weather normalization adjustment and the supporting information provided by Delmarva Power & Light Company ("Company"). Based on my review of the Company's application and supporting testimony and the Company's responses to data requests, I have reached the following conclusions:

- The Company's CCCOSS includes a number of compromises that decrease its usefulness as a guide to revenue requirements and rate design. Additionally, the CCCOSS inappropriately allocates services (the "service drop") based upon demand, which leads to results that later impact the rate design for residential space heating ("RSH") and non-space heating ("R") customers.
- The Company's revenue allocation for the Street Lighting Service class ("SL") should be rejected due to its reliance on the compromised CCCOSS and its proposed impact on SL customers compared to other customers.
- While the Company's rate design proposal creates a revenue neutral situation for itself, the Company has not provided a vision of the future benefits for its customers as a result of this proposal and its implementation of advanced metering.

- The Company's proposed rate design provides revenue stability for the Company, which substantially reduces its risk, but proposes a disproportionately small benefit to customers in the form of a 25 basis point[1] reduction to the cost of equity.
- The Company's rate design proposal meets some, but not all, of the Staff's criteria described in Order No. 7420.
- The Company's Weather Normalization adjustment includes a fixed Monthly Customer Charge that is not impacted by changes in weather and therefore overstates the revenue impact.

Background

Q. Please summarize the Company's filing

A. On September 18, 2009 the Company filed for an increase in base rates of $ 27.618 million. The filing included the required tariff sheets, a CCCOSS, a proposed revenue allocation, a rate design in response to directives in Order No. 7420 and Delaware law and the introduction of a new Schedule TN (Telecommunications Network Service).

Cost of Service

Q. Has the Company provided a cost of service study?

A. The Company provided a CCCOSS for the distribution cost function based on the twelve month period ended March 31, 2009.[2]

Q. **What is the purpose of a fully allocated cost of service study?**

A. Just as the rate case process studies each element of the Company's operations to determine the overall cost to operate the Company efficiently

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[1] Delmarva at 3:11-17 (Morin Direct)
[2] Delmarva at 3:6-10 (Tanos Direct)

and effectively, a fully allocated cost of service study attempts to determine the individual cost to serve each customer class. The fully allocated cost of service study is intended to provide information to enable the Commission to allocate revenue requirements among customer classes.

Q. **What is the unitized rate of return ("UROR")?**

A. The UROR is the ratio of any class' rate of return to the rate of return of the utility. It is a useful barometer of how well individual classes compare to each other. The ideal situation would be for all customer classes to closely approach a UROR of 1.0.

Q. **How does a Commission use the cost of service study?**

A. Because customer classes use the utility's systems on an interrelated or shared basis, regulators have historically used a fully allocated cost of service study as a guideline to allocate revenue among classes. In some jurisdictions the regulators have established a "bandwidth" such as 0.90 to 1.10 for the UROR and consider rates that place any class within that bandwidth to be reasonable in light of the decisions made when developing a cost of service study. Additionally, when determining revenue allocation, regulators have a responsibility to consider not only the utility's financial condition and requirements, but also economic, social and other factors that may affect customers.

Q. **Are there limitations to a cost of service study?**

A. Yes, a cost of service study involves judgment and decisions on the part of the practitioner in making allocations among customer classes. In some cases, decisions are made to use a particular allocation factor for a particular account. In other cases, data used to develop an allocation factor are not always complete and/or timely and the practitioner must deal with the resulting uncertainty. Therefore, the cost of service study acts as a guide to revenue allocation and can be used to assist rate design.

Q. **Are there other instances where the cost of service study may need to be adjusted or act only as a guide?**

A. Yes. Where the utility or other parties have proposed tariff and/or operational changes that affect customer classes differently, some mechanism is necessary to adjust the class UROR or account for the effects of such changes before the final revenue increase is allocated.

Q. **Have you reviewed the cost of service study presented by the Company's witness Mr. Tanos?**

A. Yes. The CCCOSS included as Schedule EPT-1 is a summary of the results under present rates. Schedule EPT-2 is a summary of detailed results that have been used for rate design purposes by Mr. Janocha and are based on a claimed rate of return different from that requested by the Company.

The Company's CCCOSS includes a number of compromises or decisions (which I will discuss below) that impair its use for revenue allocation and rate design unless it is revised. I therefore only consider it as a point of reference that offers limited guidance for revenue allocation and rate design.

Q. What are some of the compromises within the Company's CCCOSS?

A. The compromises in the CCCOSS I will identify address: (i) the adjusted test period data reflected in the study; (ii) the load data utilized; (iii) the loss study utilized; (iv) the treatment of weather normalized data; (v) post-filing corrections; (vi) the rate of return reflected; and (vii) the treatment of service facilities to the customer.

Q. Please discuss the test period data reflected in the CCCOSSS.

A. The Company's CCCOSS was developed for the twelve month period ending March 31, 2009.[3] While this period is the same as the test year, the Company did not update the CCCOSS to reflect the Company's proposed test year adjustments.[4] The resulting CCCOSS, therefore, does not correspond to the adjusted revenue requirements proposed by the Company for the period ending March 31, 2009.

Q. Please discuss the load data reflected in the CCCOSSS.

A. The Company's CCCOSS does not use load data for the residential classes that is specific and relevant to its Delaware service territory.[5] The Company used the "... average load factors for residential heating and non-heating customer groups from the PEPCO Maryland continuous load research program ...",[6] but offered no evidence to support the transfer of load data from one jurisdiction in one state to another jurisdiction in another state.

In response to a Staff data request the Company provided only high level comparison data (consisting of usage data) for each of the two service

[3] Delmarva at 3:9 (Tanos Direct)
[4] Response to Data Request PSC-COS-8 (VonSteuben)
[5] Response to Data Request PSC-COS-32 (Tanos)
[6] Delmarva at 9:16-17 (Tanos Direct)

territories.[7] The Company did not respond to the portions of the data request seeking information such as customer density, customer income, housing stock or appliance saturation. Customer income and housing stock are key drivers of central air conditioning, which can be provided by a heat pump. Without this information, the applicability of Maryland load data to Delaware should be questioned. Furthermore, the CCCOSS uses Delaware-specific load data for the non-residential classes, which creates a mismatch of indeterminable magnitude.[8]

Q. Please discuss the loss study reflected in the CCCOSSS.

A. The Company used a 1996 Analysis of System Losses to develop the demand and energy data in the CCCOSS[9]. While utilities may use a loss study that is somewhat out of date with the cost of service study, in this case the Company is using a study that is over ten years behind the current state of its distribution system, which, in my opinion, is excessive.

Q. Please discuss the treatment of weather normalized data reflected in the CCCOSSS.

A. The CCCOSS is not weather-normalized and thus imbeds the impact of test year weather into the CCCOSS and creates a bias between weather sensitive and less or non-weather sensitive customer classes.[10]

Q. Please discuss the post-filing corrections to the CCCOSSS.

A As a result of the discovery process, the Company corrected items in the CCCOSS such as "additional direct assignment of $166,348"[11] and a

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[7] Response to Data Request PSC-COS-57 (Tanos)
[8] Delmarva at 9:5-19 (Tanos Direct)
[9] Response to Data Request PSC-COS-4
[10] Response to Data Request PSC-COS-29 (Tanos)

"slight change in class allocation factors that were used in the filed class cost of service study" for Account 902 Meter Reading Expenses[12]. However, it did not update the CCCOSS to account for these corrections.

Q. Please discuss the rate of return reflected in the CCCOSSS.

A. The Company's CCCOSS uses a Claimed Return of 8.21%,[13] which it defines as the "preliminary estimate of the requested overall rate of return used in the cost study."[14] However, the Company has requested an overall rate of return of 7.97%.[15] Thus any component within the CCCOSS (e.g., revenue requirement, unit cost for rate design, etc.) has an inflated capital impact because of the mismatch in the claimed return used in the Company's overall filing and the CCCOSS.

Q. Please discuss the treatment of service facilities to the customer reflected in the CCCOSS.

A. Although the Company's "cost of service study classifies as customer-related service conductors (service drops), meters, installations on customer premises, and street light service assets,"[16] the Company then allocated these service drops using a demand-related allocator.[17]

Q. Did your review of the CCCOSS and the Company's Schedules raise specific concerns?

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[11] Response to Data Request PSC-COS-42 (Tanos)
[12] Response to Data Request PSC-COS-44 (Tanos)
[13] Schedule EPT-1, page 17-2, line 8 and Schedule EPT-2, page 6
[14] Response to Data Request PSC-COS-2019 (Tanos)
[15] Response to Data Request PSC-COS-1920 (Tanos)
[16] Response to Data Request General 3c
[17] Response to Data Request General 3c

A. Yes, my review of the CCCOSS discovered that certain unit costs did not appear consistent between the two residential rate classes. For the R class the calculated value was $15.53 and for the RSH class the calculated value was $16.90.

Unless the Company has different design standards for RSH customers, the service drop (the conductor leading from the street to the meter) and other customer components of service provided for R and RSH customers should be similar.

I then reviewed the allocation of Account 369 – Services and determined from Schedule EPT-1 page 25-2 that the assigned allocator was CUST369 and is indicated as Class Max NCP.

Although the Company's testimony stated that it had "retained the method of allocating service assets based on Class MDD,"[18] the Company's response to a Staff data request indicated that "Based on available information, the Company has not used the Class MDD allocation method for service assets."[19] The use of a Customer NCP (CUST369, excluding lighting) is also confirmed in Schedule EPT-4.

Q. Is the use of a NCP allocator for Account 369 – Services unusual?

A. The January 1992 NARUC Electric Utility Cost Allocation Manual ("Manual"), which is recognized as a guide, suggests that Account 369 is a customer-related cost.[20] Professor Bonbright also suggests that "...the drop wire, metering and billing ..." are customer costs.[21] Additionally, generally speaking, the allocation of cost for service conductors on the

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[18] Delmarva at 11:13-14 (Tanos Direct)
[19] Response to Data Request PSC-COS-40 (Tanos)
[20] NARUC Electric Utility Cost Allocation Manual (January 1992) Table 6-1
[21] Principles of Public Utility Rates, Bonbright et al, 2nd Edition, page 490

basis of demand indicates some benefit of diversity, which is not present in conductors used as a service drop to a single customer.

The Manual does recognize that "...the choice of methodologies will depend on the unique circumstances of each utility."[22] However, unless there are specific requirements for services that are different between the two residential subclasses, I would have expected the component to be closer in value. It is my experience that modern specifications for residential service drops are often consistent across most of a utility's service territory.

I did not find any differentiation between space heating and non-space heating residential customers in my review of the Company's response to a Staff data request covering Account 369 – Services.[23] Nor did the Company identify any difference in its standards for services in response to a follow-up Staff data request.[24] In response to yet another Staff data request the Company did not identify any differences in calls per customer, bad debt costs, metering equipment or larger services between residential and residential space heating customers that would explain the difference.[25]

Q. How were the residential Customer NCPs developed?

A. The Company has confirmed that it has not had any load surveys in place since January 1, 2001[26] and that the Customer NCP used in the CCCOSS

[22] NARUC Electric Utility Cost Allocation Manual (January 1992) Page 22
[23] Response to Data Request PSC-COS-10 (Tanos)
[24] Response to Data Request PSC-COS-51 (Tanos)
[25] Response to Data Request PSC-COS-52 (Tanos)
[26] Response to Data Request PSC-COS-30 (Tanos)

for the residential classes was based upon PEPCO Maryland residential heating and non-heating customer classes.[27]

Q. When do the residential class peaks that were used in the CCCOSS occur?

A. The residential space heating class peak occurred on January 3, 2008 at 19:00 and the residential non-space heating class peak occurred on July 20, 2008 at 17:00.[28]

Q. What is the overall impact of using a customer allocator for Account 369 – Services as compared to using the Customer NCP CUST369 allocator?

A. Generally speaking, the treatment of the cost for Account 369 – Service on a Customer NCP basis with a recovery on a per customer basis in the rate design results in a mismatch in the resulting customer charge between cost responsibility and cost recovery.

In response to a Staff data request the Company stated "[o]ther allocation approaches such as weighted customer basis, are not available." However, class customer count is available to the Company,[29] and in its data request, Staff suggested alternatives such as allocation on a customer or weighted customer basis.

My examination of the Company's CCCOSS indicated that the Company allocated $3,716 and $20,618 of Account 369 (Services) electric plant in service to the newly proposed class for Telecommunication Network

[27] Response to Data Request PSC-COS-32 (Tanos)
[28] Response to Data Request PSC-General-3 (p) [EPT-1] (Tanos)
[29] Response to Data Request PSC-COS-56 (Tanos)

Services ("TN").[30] However, in response to a Staff data request the Company indicated that "...the customer would be responsible for providing the service drop."[31]

Similarly, the Company allocated $2,221,021 and $12,322,584 of Account 369 (Services) electric plant in service to the General Service Secondary Small class.[32] The General Service Secondary Large class was allocated $624,196 and $3,463,142 of Account 369 (Services) electric plant in service.[33] However, in response to a Staff data request the Company stated that "all overhead non-residential service drops shall be installed, owned and maintained by the customer" and "[a]ll underground non-residential service drops, including those to new multi-metered locations shall be installed, owned and maintained by the customer." While these may be artifacts from prior Company policies, the allocation of Account 369 - Services does not appear to be consistent with Company policies or cost of service principles.

Q. Is the CCCOSS useful for revenue allocation or rate design purposes?

A. Based on the compromises detailed above, the CCCOSS offers only limited information for revenue allocation and rate design.

Q. Can the CCCOSS be rehabilitated?

A. On rebuttal the Company should be able to provide an updated cost of service run allocating Account 369 on a customer basis consistent with Company policies. The CCCOSS should be corrected to use the rate of

[30] Schedule EPT-1, Page 2-2, lines 24-25
[31] Response to Data Request PSC-COS-54 (Tanos)
[32] Schedule EPT-1, Page 2-2, lines 24-25
[33] Schedule EPT-1, Page 2-2, lines 24-25

return requested in this case. The Company may be able to address other compromises within the CCCOSS.

I believe that a technical conference among Staff and the parties with a focused agenda and information provided by the Company in advance of the conference could remedy a number of the compromises.

Q. Do you have any further comments?

A. Yes. Rather than address cost of service issues in the context of individual rate cases, including the compromises of such studies as I have discussed here, I believe it would be more productive for all participants to confer and develop a standardized, adaptable cost of service study model to be used in future rate cases. This approach has been implemented in Michigan and has greatly reduced the disputes among the parties to rate cases involving cost of service issues.

Revenue Allocation

Q. What does the Company's CCCOSS demonstrate with regard to the relative rates of return of the various classes?

A. Under the Company's CCCOSS' assumptions, the R, RSH, General Services-Primary ("GS-P") and SL class each has a UROR below 1.0, implying a return below the Company average. The other classes' URORs are above 1.0, implying a return above the Company average. None of the classes has a negative UROR, indicating that all classes contribute a return.

Q. **Assuming that the CCCOSS is rehabilitated, how should the total revenue increase, if any is granted, be allocated?**

The revenue allocation proposed by Company witness Janocha appears to have been driven by two primary considerations:

- Movement of all service classification URORs to 1.0 in a single rate change would require significant shifts in allocation of revenue requirements among service classifications and, consequently, would have large inter-class rate impacts. Therefore, customer impact should be considered as a balancing factor in any effort to achieve the goal of setting all service classification URORs at unity.[34]
- A general limitation that no service classification would experience an increase of more than 150% of the overall distribution percentage increase.[35]

Q. **How do you suggest that the required revenue increase, if any is granted, be allocated?**

A. In general I support Mr. Janocha's principles but offer an additional consideration. Schedule D (page 1 of 2) in the Company's application calculates the Proposed Distribution Revenue Increase and the Total Proposed Revenue Increase. The Company meets its general limitation of 150% for all classes when comparing the suggested distribution revenue class increases to the average distribution revenue increase (19.05%). However, the general limitation is not met when comparing the suggested total revenue increase for the lighting classes (18.57%) to the average total revenue increase (4.00%).

Delmarva's affiliate in the District of Columbia uses a total revenue increase as another measure of rate impact.[36] I support the use of this

[34] Delmarva at 5:7-12 (Janocha Direct)
[35] Delmarva at 5:14-16 (Janocha Direct)
[36] DC Formal Case No. 1076, Bumgarner Testimony 7:22-8:12

consideration in addition to the Company's measures to evaluate a proposed rate increase.

Q. Using the several measures how would you change the Company's proposed revenue allocation?

A. At this time, due to my concerns about the CCCOSS I do not support its use for revenue allocation purposes. Absent the appropriate revisions to the CCCOSS, I propose for this case that any allowed revenue increase be allocated across the board based on distribution revenue, subject to the revenue expected by the Company for Service Classification TN.

My suggested target revenue allocation and the overall impact of my suggested target revenue allocation are detailed in Exhibit HS-2. To allow the parties to compare revenue allocation I use the same requested revenue request as the Company. Obviously this is not an endorsement of the Company's revenue request but is provided for illustrative purposes.

Should the CCCOSS be acceptably rehabilitated I will propose a revenue allocation based upon the principles discussed above.

Rate Design

1. Service Classification TN

Q. Have you reviewed the Company's proposed Service Classification TN?

A. Yes. I support the establishment of this new service classification for "... essentially constant, highly predictable consumption levels, operating at fairly high load factors."[37] I further recommend that the Commission allow

[37] Delmarva at 14:20-21 (Janocha Direct)

governmental entities to use this service classification for traffic signals at their option.

Q. Why are you proposing to extend the Service Classification TN to traffic signals?

A. Traffic signals are essentially constant (red, yellow or green), have predictable consumption levels and operate at high load factors and therefore meet the criteria for Service Classification TN. The Company has indicated that its 1800 watt limitation is based upon the power requirements of the amplification equipment for which the service classification is intended.[38] Because there is no rate design or distribution system basis for the 1800 watt limitation, traffic signals will have no adverse impact if served under Service Classification TN.

At present traffic signals are served under Service Classification Outdoor Lighting ("OL") and benefit from Standard Offer Service ("SOS") at a rate of $0.070845 per kWh, which is identical to the OL SOS rate. While traffic signals have 24 hour per day usage that is both on and off peak, outdoor lighting has a more off-peak character. If in the future SOS rates are adjusted to remove this unexplained anomaly or competitive supply becomes more prevalent, then the Service Classification TN may be more appropriate for traffic signals and be available for them.

Q. Do you have other adjustments related to the TN Service Classification?

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[38] Response to Data Request PSC-RD-48 (Janocha)

A. Yes. Even though the Company states that customers in the TN Service Classification are "appropriate candidates for unmetered service,"[39] the CCCOSS allocates $161,336 of meter costs to the TN rate class[40].

Q. Why did the Company allocate these meter costs to the TN class?

A. In response to Staff discovery, the Company stated that it allocated meter costs to the TN class because those customers were previously served in metered rate classes.[41] Although an adjustment was made to the revenue requirement for these meter costs prior to the calculation of the final distribution rate, these meter costs will no longer be relevant and should be properly allocated within the Company's CCCOSS.

2. Revenue-Decoupled Rate Design

Q. Has the Commission issued guidance on the form of future distribution rates?

A. Yes. On September 16, 2008 the Delaware Public Service Commission ("Commission") issued Order No. 7420 ("Order"). This order concluded that imposing surcharges for energy efficiency programs and revenue deficiencies related to conservation efforts was not the preferred approach,[42] and discussed:

- Staff's recommendations regarding the potential adoption of a modified fixed variable ("MFV") rate design for Delaware distribution utilities in the context of a rate proceeding;[43]
- The flexibility to address these rate design changes outside of a base rate case if the situation is warranted;[44] and

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[39] Delmarva at 14:21-22 (Janocha Direct)
[40] Schedule EPT-1, page 2-2, line 26
[41] Response to Data Request PSC-RD-15c (Janocha)
[42] Order No. 7420 page 4
[43] Order No. 7420 page 5

- The approval of the diffusion of advanced metering technology into the electric and natural gas distribution system networks and the establishment of a regulatory asset for the technology subject to the rate case process.[45]

Q. Please explain the concept of Staff's MFV rate design.

A. In the Findings and Recommendations of the Hearing Examiner (Attachment A to the Order), the Hearing Examiner determined that the Staff:

- Supported the concept of revenue decoupling for energy, using alternate rate designs that collect more fixed costs through customer or demand charges as part of a base rate proceeding.[46]
- Proposed a MFV method that would stratify rate classes to mitigate the potential high cost impact on low-income customers resulting from a change in rate design.[47]
- Asserted that the MFV rate design moves toward a rate design that more appropriately aligns fixed costs with rates that comport with cost causation principles.[48]
- Observed that the MFV rate design sends a proper price signal regarding a customer's decision to engage in conservation and reduces customer cross-subsidization.[49]

The Order highlighted that Staff's modification of the fixed variable rate design creates particular classes of customers to avoid rate subsidization.[50]

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[44] Order No. 7420 page 5
[45] Order No. 7420 page 5
[46] Order No. 7420 Attachment A at 12
[47] Order No. 7420 Attachment A at 13
[48] Order No. 7420 Attachment A at 13
[49] Order No. 7420 Attachment A at 13

Q. Did the Staff suggest any criteria for the Commission to evaluate a MFV rate design proposal?

A. Yes, those factors were listed in the Hearing Examiner's findings as:[51]

- Rate gradualism;
- Customer equity;
- Impact on the Company's risk profile;
- Over/underearning protection; and
- Customer service and reliability protection.

Q. What are the positive aspects of a fixed variable rate design?

A. A fixed variable rate design better aligns costs and rates and reduces the cross-subsidization of various usage levels within a rate class. The fixed portion is designed to recover costs that are independent of demand or volume, such as customer service, metering and the service line.

For the utility, a fixed variable rate design provides better revenue stability and more predictable earnings when compared to a volumetric rate. Inherent in volumetric rates is the risk that weather will not be "normal," such as a warmer than normal heating season. A fixed variable rate design also mitigates business risk. As the economy suffers customers may reduce their consumption, which translates into a decrease in volumetric usage and related revenues.

For the customer, a fixed variable rate design provides better bill stability when compared to a volumetric rate. Inherent in volumetric rates is the

[50] Order No. 7420 page 5 (footnote)
[51] Order No. 7420 Attachment A at 14

risk that weather will not be "normal," such as a colder than normal heating season.

Q. What are the negative aspects of a fixed variable rate design?

A. To the extent that a volumetric (usage) based rate design is replaced by a fixed variable rate design, customers that have not been paying their full cost of service will see an increase and customers in the opposite situation will see a decrease. The rate impact on a particular customer depends on the differences between the old volumetric-based rate and the fixed variable rate proposed.

Once a fixed variable rate design is in place the negative aspect is the customer's perception of how the demand charge operates, because most small customers have not yet been subjected to them. This perception can become negative if the utility does not clearly define how the demand charge is determined, when it will change and how the customer's behavior (usage and conservation) affects the demand level. A utility-provided customer education program that starts with the adoption of the new fixed variable rate design and continues with each update of the customer's demand level is crucial to obtaining customer understanding.

Q. Please summarize the Company's proposal for a fixed variable rate design.

A. The Company is proposing to implement a modified straight fixed variable ("SFV") rate design for all Service Classifications except GS-T, OL and ORL.[52]

[52] Delmarva at 8:7-9 (Janocha Direct)

Q. How does the Company define the Distribution Demand Contribution ("DDC") and its calculation?

A. The Company defines the DDC as the Transmission Peak Load Contribution ("PLC") that is kept fixed on a premise basis until new distribution rates are approved in future rate cases.[53] The Company's approach achieves complete distribution revenue stability for current customers considered in the rate design.[54]

The actual definition from the proposed tariff sheet is:

> "**Distribution Demand Contribution ("DDC")** - The level of a customer's electric demand, measured in kilowatts for the customer's premise, for purposes of establishing the distribution portion of the customer's bill when applied to the Distribution Demand Charge. The DDC shall be equal to the customer's Peak Load Contribution for Transmission in effect during the time frame used to establish distribution rates. The DDC will remain fixed on a customer premise basis until changed as part of a distribution rate case."[55]

The words "in effect during the time frame used to establish distribution rates" could be construed to mean the time period of a rate case from the date of filing until new rates are determined. This construction might span a period when the Transmission PLC has changed and thus the definition of DDC may apply to two Transmission PLCs. Therefore, I suggest that the definition of DDC be modified to reflect the premise's Transmission PLC at the time that new distribution rates are filed by the Company in response to a Commission rate order.

Q. What DDC will be assigned to a new home or business location that was not previously supplied by the Company?

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[53] Delmarva at 9:1-2 (Janocha Direct)
[54] Delmarva at 9:3-4 (Janocha Direct)

A. Neither the Company's rate design testimony nor its proposed tariff sheets address this situation. The PHI Supplier Operating Manual (page 21) indicates that new customers will be assigned a default value using class average data until actual summer peak usage for the customer becomes available. The Company does not indicate if a new premise will be updated or be forced to use the default value after the following December 31^{st}.

General service classes may have a wide variability between customers and the use of a class default value for the period between rate cases may under- or overcharge new customers.

For any customer that engages in substantial energy efficiency or conservation efforts such as installing new space conditioning or manufacturing equipment, not changing the customer's DDC between rate cases will detrimentally affect the customer's return on its investment.

Q. How is the Transmission PLC developed?

A. The Company defines the development of the Transmission PLC in the PHI Supplier Operating Manual.[56]

The Company has provided relevant information that relates the PLC to summer usage in Schedule JFJ-5. This can be derived by an analysis of the first two columns of Schedule JFJ-5. For R customers, the PLC is approximately the customer's summer usage divided by 292.7.[57] For RSH

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[55] Fourth Revised Leaf No. 5
[56] Response to Data Request DPA-RD-4 (Janocha)
[57] Schedule JFJ-5 pages 1-5

customers, the PLC is approximately the customer's summer usage divided by approximately 269.[58]

Q. How does the DDC relate to the customer's actual demand on the Company's distribution system?

A. The DDC is derived from the Transmission PLC and the PLC is based on summer usage.[59] Therefore the DDC is based upon the individual customer's peak season usage. For summer peaking customers there may be some relationship between the proposed DDC and a customer's demand on the distribution system. For winter peaking customers such as some RSH customers, there appears to be little relationship between summer usage and the residential heating class peak that the Company indicates occurred in January 2008.[60]

At best the Company's proposal to establish the DDC is a transitional measure because the Company has not completed its load research and does not have individual customer demand readings for most customers.

The Company does not explain why it has not proposed using demand readings for those customers that have demand meters installed. For example, the Company could set an existing demand-metered customer's DDC as the highest demand reading in the twelve months prior to the filing of new distribution rates. However, this would then create two separate and potentially confusing definitions for the DDC at the transition to the modified fixed variable rate design.

Q. How did the Company develop its proposed fixed variable rate design?

[58] Schedule JFJ-5 pages 6-10
[59] Also see Delmarva at 12:21-23 (Janocha)

A. The Company indicated that the development of the proposed new rates is provided in Schedule JFJ-3. There is no other testimony defining the process.

It appears that the Company determined its revenue allocation in Schedule JFJ-1. Then it used the CCCOSS results shown in JFJ-2 that detail the relative customer-related % (row 6) and demand related % (row 7) to derive the proposed charges recovery (rows 10 and 11). The respective customer and demand portions appear to be derived from Schedule EPT-2 page 6 using the class DEMAND DISTRIBUTION and the class CUSTOMER COMPONENTS. As I previously mentioned, since EPT-2 uses a claimed rate of return in excess of that requested by the Company in this case, the demand and customer components are distorted. EPT-2 is further distorted by the other compromises in the CCCOSS.

The Company's Proposed Rates were derived through a direct calculation in the spreadsheet, which produced Schedule JFJ-3.[61]

Q. How did the Company estimate and review the bill impact of the proposed fixed variable rate design?

A. Schedule JFJ-4 is a revenue-neutral analysis of the impact of the proposed rate design on Residential Service Classification customers. That analysis indicates that: (1) more than 8% of R customers would experience an average overall monthly bill increase of over 10%, with an average monthly increase of $6.14;[62] and (2) more than 11% of RSH

[60] Response to Data Request PSC-General-3 (p) [EPT-1] (Tanos)
[61] Response to Data Request DPA-RD-5 (Janocha)
[62] Schedule JFJ-2 page 2

customers would experience an average overall monthly increase of over 10%, with an average monthly increase of $9.81.[63]

The Company did not provide bill impact information for other service classifications in a form similar to JFJ-4 in its testimony; however the Company did provide such data in response to a Staff data request.[64] That analysis indicates that: (1) more than 29% of SGS Service Classification customers would experience an average overall monthly increase of over 10%, with a monthly average increase of $8.48; (2) more than 13% of MGS Service Classification customers would experience an average overall monthly increase of over 10%, with a monthly average increase of $26.53; and (3) no LGS or GS-P Service Classification customers would experience average overall monthly bill increases of over 10%.

I am unable to replicate the Company's Schedules JFJ-4 & 5, as the full operating combination of Access database and Excel worksheet has not been provided. Nor am I able to use the Company model to estimate the billing impact of alternative MFV rate designs on customers. Further, although customer impact information was requested for a range of potential MFV rate designs, the Company has not prepared similar analyses for any alternative rate designs.[65]

Q. Would the Company reconcile its distribution revenue between rate cases?

A. No. The Company has not proposed any reconciliation of its distribution revenue between rate cases. The combination of a fixed DDC for each premise and fixed rates between rate cases would fix the Company's

[63] Schedule JFJ-2 page 2
[64] Response to Data Request PSC-RD-13 (Janocha)

revenue per customer for the period between two rate filings. The Company has not proposed any maximum period between rate cases or a mandatory reopener for individual customer DDC values.

Q. Should the Commission consider limiting the effective term for a customer's DDC?

A. Yes. Without a specific term or reopener the value of conservation and/or energy efficiency to a customer is reduced. Also, the inequity of an arbitrarily assigned DDC for a new home or premise continues until the next rate case.

The Company has decided to use a DDC that is derived from the Transmission PLC. I previously discussed the problems with this in relation to RSH customers. This may be a transitional stopgap until AMI is fully implemented and all customers will have a demand reading, but the Company has not specifically stated this.

Q. How does the Company propose to explain the proposed fixed variable rate design to its customers?

A. The Company's testimony does not include any details regarding how it plans to educate customers in the operation or impact of the proposed rate structure. In response to a Staff data request, the Company stated that it "anticipates that the customer education process on the new rate design would include the use of its monthly customer newsletter, and a detailed bill insert."[66] The Company would also utilize its Speakers Bureau.

[65] Response to Data Request PSC-RD-52 (Janocha)
[66] Response to Data Request PSC-RD-33 (Janocha)

Q. What is the history in number of electric distribution customers?

A. I have prepared Exhibit HS-3 from the Company's response to Data Request PSC-RD-36. This exhibit plots the calendar year annual average number of customers by class from the Company's data. The trend is clear that except for the industrial class, the annual number of customers has increased in every year.

Q. What is the forecast for electric distribution customers?

I prepared Exhibit HS-4 from the Company's response to Data Request PSC-RD-37. This exhibit plots the Company's forecast. The Company-supplied forecast demonstrates an increasing number of customers (except for the industrial class) in the Company's view of the future.

Q. Have you analyzed the change in the revenue profile from the existing two part (customer and volumetric) rate design as compared to the proposed fixed variable (customer and demand) rate design?

A. Yes. I prepared Exhibit HS-5 to demonstrate the magnitude of the shift to stable and predictable revenue as compared to the more risky volumetric revenue that is subject to both weather and business risk. This exhibit uses the same format, billing determinants and revenue as Schedule JFJ-3 for both the residential and general service delivery rates. I added several columns and computed the percentage of revenue that is fixed between rate cases (that is, fixed for an annual (twelve month) period) and the percentage that is subject to volumetric change with weather and/or business conditions.

As shown in Exhibit HS-5 (Column (4)), at present only 27% of the residential revenue and 26% of the SGS revenue is fixed (per customer) between rate cases. The remainder of the revenue is presently exposed to volumetric risk. After the implementation of the proposed fixed variable rate design, 100% of the Company's distribution revenue will be fixed on a per customer basis and thus would increase on an absolute (forecasted) basis.

Q. Have you analyzed the change in the MGS and LGS revenue profile from the existing three part (customer, demand and volumetric) rate design as compared to the proposed fixed variable (customer and demand) rate design?

A. Yes. I prepared Exhibit HS-5 to demonstrate the magnitude of the shift to stable and predictable revenue as compared to the more risky volumetric revenue that is subject to both weather and business risk. The Company's existing MGS and LGS rates presently have a customer and demand charge format. However, unlike some utilities, there is no demand ratchet to stabilize revenue over a period such as twelve months. Thus, the proposed rate design eliminates the business risk of the present demand rate design. This exhibit uses the same format, billing determinants and revenue as Schedule JFJ-3 for the demand metered general service delivery rates (MGS-S, LGS-S, GS-P and GS-T). I added several columns and computed the percentage of revenue that is fixed between rate cases and the percentage that is subject to volumetric change with weather and/or business conditions.

As shown in Exhibit HS-5 (Column (4)), at present only 18% of the medium general service and 11% of the large general service revenue is fixed (per customer) between rate cases. The remainder of the revenue is presently exposed to variable (demand) risk. After the implementation of the proposed fixed variable rate design, 100% of the Company's distribution revenue will be fixed on a per customer basis.

Q. What is the net impact on revenue stability of the proposed fixed variable rate design?

A. As shown in Exhibit HS-5 (Column (9)), upon the implementation of the Company's proposed fixed variable rate design, 100% of the Company's distribution service revenue is shifted to the stable customer and DDC charges (fixed between rate cases). With the exception of the industrial class, the number of customers that will be charged these rate components has been and is forecasted to be increasing over time.[67]

Q. Does the DDC concept have any effect on customer conservation?

A. The Company's proposed rate design does not adversely impact any customer's incentive to conserve and/or make structural improvements to its home or business. Any reduction in consumption is directly accompanied by a reduction in the commodity charge. The commodity charge represents, on average, approximately 79% of a customer's total bill.

However, the proposed rate design fixes the DDC between rate cases and will delay the distribution portion of the conservation savings for the change in usage by a customer.

Q. Does the Company retain the conservation risk?

A. No. Moving the distribution revenue recovery to the customer and DDC charges eliminates the Company's conservation risk between rate cases.

[67] Response to Data Request PSC-RD-36 and PSC-RD-37 (Janocha)

a. Analysis of the Company's Proposed Fixed Variable Rate Design

Q. Does the Company's proposed fixed variable rate design satisfy Staff's criteria for a rate design?

A. I will address each of Staff's criteria in turn.

Rate Gradualism Although the Company's revenue-neutral bill impact and single point analyses found that 8.38% and 11.37% of R and RSH customers respectively would experience an annual change in excess of 10%,[68] the Company has not proposed any rate stoppers, phase-in or other process to gradually introduce its proposed fixed variable rate design for residential customers. However, it is reasonable to ignore the concerns of customers receiving a rate decrease and focus on the customers that receive an average $6.14 and $9.81 monthly increase respectively.

Unfortunately, the Company does not appear to have explored any other proposals such as different customer charges (and the associated revenue-neutral DDC) to provide all parties with information to evaluate the impact on customers of the change to a fixed variable rate design.[69]

Customer Equity The Company's use of both a Customer Charge and a DDC charge tailors the fixed variable rate to the customer's usage, as opposed to a one size fits all flat monthly or annual charge for delivery service. However, the fixed DDC charge will provide a customer with a delayed (to the next rate case) price response to its conservation or operational changes.

[68] Schedule JFJ-4
[69] Response to Data Request PSC-RD-52 (Janocha)

Because each customer's bill is derived directly from its individual demand, no customer's rates are impacted by the conservation efforts of other customers between rate cases. This cross-subsidization of customers unable or unwilling to implement conservation measures (such as added insulation or new equipment) by customers that have the means or inclination to conserve has been a criticism of decoupling adjustments such as the Bill Stabilization Adjustment ("BSA").

Impact on the Company's Risk Profile As detailed above, the Company's risk profile is significantly enhanced by shifting all of the volumetric-based revenue (with its inherent weather and business risk) to the fixed and increased customer charge and the fixed demand (DDC) component. The revenue per customer between rate cases is fixed.

Over/UnderEarning Protection The Company's earnings are the net result of its revenues and expenses. The proposed fixed variable rate design will have little or no impact or change on the Company's expenses. The proposed rate design will stabilize revenues and thus stabilize the Company's earnings much better than a rate structure with 73-89% of the revenue subject to volumetric risk.

Customer Service and Reliability Protection The proposed rate design should not impact the quality of the Company's customer service and reliability performance, nor should the existing performance standards be affected if a customer education program is implemented.

Q. What is your opinion of the Company's rate design proposal?

A. The Company's filing is incomplete. There are a number of issues left unanswered.

- Although Staff expressed concerns about the transition from the existing volumetric rate design to a MFV rate design due to the initial impact on low usage customers, the Company submitted only one potential rate design and submitted only a single point (one customer charge) bill impact analysis for residential and general service customers.
- The Company has proposed only the delivery channels for, but not the content of, a customer education program to support the implementation of the proposed MFV rate design.
- There is no indication that the Company has considered the coordinated initial implementation of the proposed electric MFV rate design with the potential implementation of the proposed gas MFV rate design.[70]
- The compromises in the CCCOSS also affect the calculation of the customer components and the customer-demand revenue ratio.

Most importantly, the Company's filing does not provide either the Commission or customers with any vision of where its proposed fixed variable rate design will go in the future.

Q. Why is a vision of the future important for customers?

A. As the Company's proposal is presently structured, there is only a small return on equity benefit to customers (25 basis points). Customers exchange rates based on total usage for rates based on a (summer) usage. Although the Company plans to install advanced metering for electric customers by the end of 2010,[71] the Company's filing is devoid of any indication or promise of benefits for its electric customers as a result of this rate design.

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[70] Response to Data Request PSC-RD-45 (Janocha)
[71] Response to Data Request PSC-RD-51

Recommendations

Rate Impact

Q. Should the Company provide additional information on the rate impact of its proposed fixed variable rate design?

A. Yes. The Company can consider other revenue-neutral rate designs (by rate class) to determine if a different mix of the customer charge and DDC would better minimize the bill impact.

If the Company does not provide the information needed to evaluate the impact of the proposed rate design on both residential and general service customers, I suggest that the Commission institute a "rate cap" to protect customers from the Company's incomplete rate research. For a period after implementation (one to two years), the Company would cap the impact of its proposed rate design at a fixed dollar per bill limit (or a specific maximum percentage increase). Any customer whose bill under the new rate design exceeds the previous volumetric cost bill by more than the fixed dollar limit would pay only the fixed limit amount. The lost revenue would provide an incentive for the Company to provide adequate rate research in future cases.

Customer Communications and Education

Q. Should the Company be ordered to develop a customer education and communications program to prepare for the implementation of the MFV rate design?

A. Yes. As a recent series of articles and the associated comments indicate,[72] there is a real possibility that customers are misunderstanding and will continue to misunderstand the change from the existing

[72] http://www.delawareonline.com/apps/pbcs.dll/article?AID=2009909280325

volumetric based rate design to the MFV rate design. Customers will be challenged by the DDC concept and will properly wonder if it will reduce their incentive to conserve and make energy efficiency improvements.

As noted previously, the Company has provided no details about any proposed customer education process. The Commission should order the Company to collaborate with Staff and the Division of the Public Advocate to prepare a customer education and communications program (much as it is doing in Docket No. 09-277T, the gas revenue decoupling docket).[73]

The Company should use (at a minimum) bill inserts, newspaper advertisements and its website as printed methods of customer communication. Further, its customer service representatives should receive training to address customers' questions about the new rate design. Additionally, the Company should consider outreach to other organizations and energy efficiency and conservation seminars to provide verbal communications.

The Commission should keep in mind the impact on its internal customer service operations of a change in rate design. If the Company fails to execute a customer education program effectively, then many customers will seek information from the Commission and potentially overload its resources.

Implementation of the MFV Rate Design

Q. When do you recommend that the new rates be implemented?

A. To avoid customer confusion for combination electric and gas customers, I recommend that the Commission order the Company to plan to implement its gas MFV rate design simultaneously with the electric MFV rate design.

[73] Response to (Docket No. 09-277T) Data Request PSC Staff 1-5 (Janocha)

Calculation of Customer Costs

Q. If the Company's calculation of customer costs is compromised by the existing CCCOSS, how can the MFV rate design be completed?

A. I am optimistic that the Company can rehabilitate the CCCOSS and remove a number of the compromises such that the revised customer costs can be used to analyze and then calculate the MFV rate design.

Business Risk Reduction

Q. When revenue stabilization is implemented have other regulators recognized the effect of increased stability?

A. Two decisions are on point.
On July 19, 2007 the Maryland PSC implemented PEPCO's request for a BSA for electric service.[74] This implementation was accompanied by a reduction in the company's ROE.

On September 28, 2009 the District of Columbia PSC implemented PEPCO's request for a BSA for electric service.[75] This implementation was accompanied by a reduction in the company's ROE. The PSC's order provides the range of the ROE reduction that the various parties suggested during that case.

Q. Is the proposed fixed variable rate design in this proceeding comparable to a BSA?

A. A BSA as previously proposed by the Company and its affiliates "locks" the revenue per customer between rate cases. The utility also retains any

[74] MD PSC Order No. 81517 at page 81
[75] DC PSC Order No. 15556 at 29

new revenue due to growth in the number of customers during that period. Any change in usage per customer is adjusted away by the BSA. Thus the revenue per customer is very stable.

The BSA, as implemented by the Company's affiliate PEPCO, includes a cap on the increase or reduction of monthly revenue per customer at a level of 10%. Under this cap it is possible that the utility would not see all of the revenue it has lost in a month recouped for two or more months, creating a revenue lag. The Company's proposed fixed variable rate design in this proceeding does not include any lag in revenue collection because it is a fixed rate structure, not an adjustment mechanism.

The Company's proposed rate design shifts all of the revenue associated with volumetric sales to either a higher customer or DDC charges that are fixed between rate cases. Under the proposed rate design the Company will retain any new revenue due to the growth in the number of customers. The Company's proposal is preferable from its standpoint compared to the BSA.

Q. How do you recommend that the Commission recognize the value of the reduction in business risk of the proposed MFV rate design?

A. The proposed rate design in this proceeding offers the Company almost completely stable revenue compared to the existing rate structure. It also preserves the Company's opportunity to profit from its forecasted increases in the number of customers. It stabilizes revenue by employing the DDC charge as a form of a demand ratchet with a term equal to the period between rate cases. The proposed rate design does not include any caps and does not delay the recovery of revenue.

Therefore I suggest that if the proposed rate design is implemented, the Company's ROE for the classes affected should be reduced concurrent with that change. A similar situation occurred in the recent implementation of a BSA for PEPCO in the District of Columbia. In that case the Commission ordered that the ROE reduction be implemented based on the associated class rate base.[76]

Customer Benefits

Q. Should the Company articulate the benefits to its customers of the proposed fixed variable rate design and other Company initiatives?

A. Yes. The Company should articulate its vision of the future and detail the benefits for its customers from advanced metering and the proposed fixed variable rate design. This vision should not focus solely on the intermediate step of the proposed fixed variable DDC rate, but should also demonstrate the long-term benefits to customers of a series of changes and innovation.

For example, when advanced metering is in place does the Company intend to move the DDC calculation from the PLC to a few critical service days or to the distribution peak load that the customer places on the distribution system regardless of seasonality? If so, this concept may allow the Company to influence the customer's impact on the distribution system.

Follow-on Implementation

Q. Should the Commission require a reopener of the proposed rate design?

[76] DC PSC Order No. 15556 at 31

A. Yes. The Company plans to complete its implementation of AMI by December 2010.[77] According to that schedule approximately 50% of the AMI meters should be in place and delivering data for twelve months by some point in 2011. At that point the Company should convene a technical conference to share the available distribution load data with interested parties. Such information would include the annual and monthly peaks of each class, when they occur and the comparison between the class peak profile and the Transmission PLC. At some point thereafter, the Commission should consider requiring the Company to file a new case to examine the reasonableness of the continued use of the Transmission PLC as the value of DDC.

Weather Normalization Adjustment #1

Q. Please describe the Company's Weather Normalization Adjustment #1.

A. The Company has proposed an adjustment to restate its distribution sales to reflect normal weather conditions for the test period. The Company argues that actual test period sales are 176,433 MWh above normal weather.[78]

Schedule WMV-3 Adjustment 1 calculates the value of this adjustment for distribution revenue. The supporting workpaper for the adjustment calculates the revenue impact for each rate class by first dividing the Booked (Distribution) Revenue (line 4) by the Delivered Sales (line 1) and then calls the result Average Rates – Distribution (line 11).

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[77] Response to Data Request PSC-RD-51
[78] Delmarva at 11:20-12-20 (VonStueben Direct)

Average Rates - Distribution are shown as 3.20, 2.43 and 1.54 respectively for the R, RSH and COM classes. There is no adjustment calculated for the IND and SL classes as they are not weather-sensitive.

The supporting workpaper then multiplies the Weather Corrected Delivered Sales (line 15) by the Average Rates – Distribution (line 11) to develop the Weather Corrected Revenue – Distribution (line 18). Finally, the Weather Corrected Revenue – Distribution (line 18) is subtracted from the Booked Revenue – Distribution (line 4) to generate the Company's adjustment Variance From Booked Revenue – Distribution (line 25).

Q. Is the Company's methodology to calculate the Weather Normalization Adjustment appropriate?

A. No. The Company uses its Booked Revenues, which include both the Monthly Customer Charge and the Distribution Energy Rate,[79] to develop its Average Rate – Distribution for R and RSH customers. COM customers are served under rates that include the Monthly Customer Charge and may include a Distribution Energy Rate and/or a Distribution Demand rate.[80] Under all weather conditions R and RSH customers will pay the Monthly Customer Charge at any usage level.

The correct method to calculate the Weather Normalization adjustment is to use only the Distribution Energy Rate, which is the marginal energy cost.

Q. Have you recalculated the Weather Normalization Adjustment using the correct marginal energy cost?

[79] Schedule JFJ-3 page 1
[80] Schedule JFJ-3 pages 3-10

A. Yes. As shown in Exhibit HS-6, I have recalculated the Variance From Booked Revenue by multiplying the difference between Delivered Sales (line 1) and Weather Corrected Delivered Sales (line 15) by the Distribution Energy Rate for R and RSH (line 35)[81] to calculate the correct weather normalization adjustment (line 38) for the R and RSH classes.

The Company's supporting workpaper does not define which rate classes contribute to the COM class and therefore the marginal energy cost cannot be used. Absent further information from the Company I suggest that Staff revenue requirements witness Mullinax develop a ratio to adjust the approximate value of the COM class' Weather Normalization Adjustment.

Q. **Does this conclude your testimony?**

A. Yes.

[81] Schedule JFJ-3 page 1

Testimony - Howard Solganick

Public Service Commission of Delaware
Case - Delmarva Power & Light Company Docket No. 09-277T (November 2009)
Client - Staff of the Delaware Public Service Commission
Scope - Testimony covered an analysis of a straight fixed variable rate design for small gas customers and implementation issues.

Case - Delmarva Power & Light Company Docket No. 06-284 (January 2007)
Client - Staff of the Delaware Public Service Commission
Scope - Testimony covered cost of service, revenue allocation, rate design and other related issues including revenue stabilization or normalization.

Georgia Public Service Commission
Case – Atmos Energy Corporation Docket No. 27163 (July 2008)
Client – Public Interest Advocacy Staff of the Georgia Public Service Commission
Scope - Testimony covered rate design and other related issues.

Jamaica (West Indies) Office of Utility Regulation
Case - Electricity Appeals Tribunal (August 2007)
Client - Jamaica public Service Company, Ltd.
Scope - "Witness Statement" on behalf of the Jamaica Public Service Company Limited. This Statement covered issues relating to recovery of expenses incurred due to Hurricane Ivan.

Maine Public Utilities Commission
Case - Northern Utilities, Accelerated Cast Iron Replacement Program Docket No. 2005-813 (2005)
Client - Public Advocate of the State of Maine
Scope - Testimony covered an analysis of the program's economics and implementation.

Public Service Commission of Maryland
Case - Chesapeake Utilities Corporation Case No. 9062 (August 2006)
Client - Office of the Maryland People's Counsel
Scope - Testimony covered cost of service, rate design and other related issues.

Case - Baltimore Gas & Electric's (1993)
Client - As president of the Mid Atlantic Independent Power Producers
Scope - Testimony covered BG&E's capacity procurement plans.

Michigan Public Service Commission
Case - Consumers Energy Company Case No. U-15245 (November 2007)
Client - Attorney General Michael A. Cox (Don Erickson, Esq.)
Scope - Testimony covered cost of service, rate design and revenue allocation.

Case - Consumers Energy Company Case No. U-15190 (July 2007)
Client - Attorney General Michael A. Cox (Don Erickson, Esq.)
Scope - Testimony covered issues related to Consumers Energy's gas revenue decoupling proposal.

Case - Consumers Energy Company Case No. U-15001 (June 2007)
Client - Attorney General Michael A. Cox (Don Erickson, Esq.)
Scope - Testimony covered issues related to Consumers Energy and the MCV Partnership.

Case - Consumers Energy Company Case No. U-14981 (September 2006)
Client - Attorney General Michael A. Cox (Don Erickson, Esq.)
Scope - Testimony covered issues relating to the sale of Consumers interest in the Midland Cogeneration Venture.

Case - Consumers Energy Company Case No. U-14347 (June 2005)
Client - Attorney General Michael A. Cox (Don Erickson, Esq.)
Scope – Testimony covered cost of service and revenue allocation.

Missouri Public Service Commission
Case – AmerenUE Storm Adequacy Review (July 2008)
Client – KEMA/AmerenUE
Scope – Oral testimony covered KEMA's review of AmerenUE's system major storm restoration efforts.

New Jersey Board of Public Utilities
Case - Cogeneration and Alternate Energy Docket # 8010-687 (1981)
Case - PURPA Rate Design and Lifeline Docket # 8010-687 (1981)
Case - Atlantic Electric Rate Case - Phases I & II Docket # 822-116 (1982)
Case - Power Supply Contract Litigation – Wilmington Thermal Systems Docket # 2755-89 (1989)
Case - NJBPU Atlantic Electric Rate Case - Phase II (1980-81) Docket # 7911-951 (Before the Commissioners of the New Jersey Board of Public Utilities)
Client - Employer was Atlantic City Electric Company.
Scope - The cases listed above covered load forecasting, capacity planning, load research, cost of service, rate design and power procurement.

Public Utilities Commission of Ohio
Case - The Application of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company Case 07-551-EL-AIR (January 2008)
Client - Ohio Schools Council
Scope - Testimony covers issues related to rate treatment of schools.

Case - The Application of the Columbus Southern Power Company 08-917-EL-SSO and the Ohio Power Company Case 08-918-EL-SSO (October 2008)
Client - Ohio Hospital Association
Scope - Testimony covers issues related to rates for net metering and alternate feed service and related treatment of hospitals.

Pennsylvania Public Utilities Commission
Case - York Water Company Docket No. R-00061322 (July 2006)
Client - Pennsylvania Office of Consumer Advocate
Subject - Testimony covered cost of service, rate design and other related issues, also supported the settlement process.

Case – Pennsylvania- American Water Company Docket No. R-2008-232689 (August 2008)
Client – Municipal Sewer Group
Subject - Testimony covered cost of service, rate design, capacity fee and other related issues, also supported the settlement process.

Public Utilities Commission of Texas
Case – Determination of Hurricane Restoration Costs Docket No. 36918 (April 2009)
Client – CenterPoint Energy Houston Electric, LLC
Subject – Testimony covered the reasonableness of the client's Hurricane Ike restoration process for an outage covering over two million customers and a restoration period of 18 days.

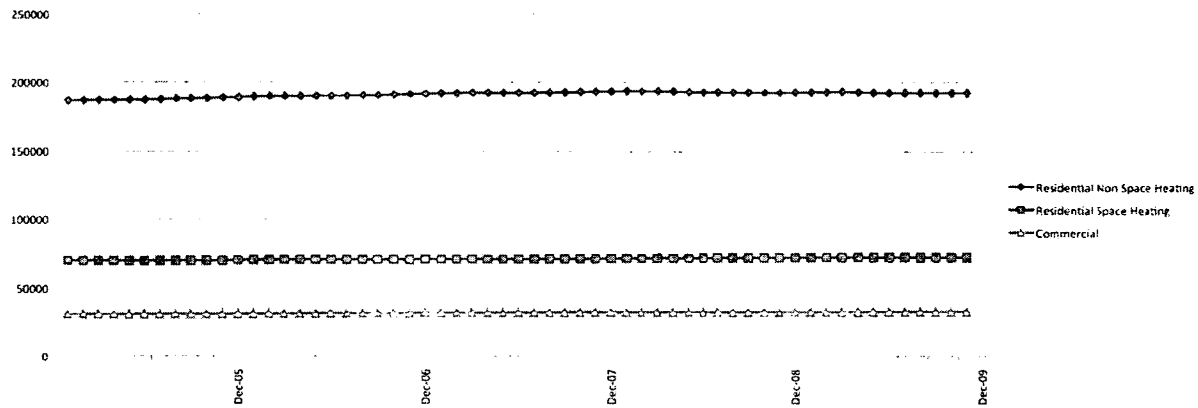
Docket No: 09-414
Witness: Howard Solganick
Exhibit: HS-2

Delmarva Power & Light Company - Delaware
Summary of Proposed Revenue Increase
Using Twelve Months Ending March 2009 Data

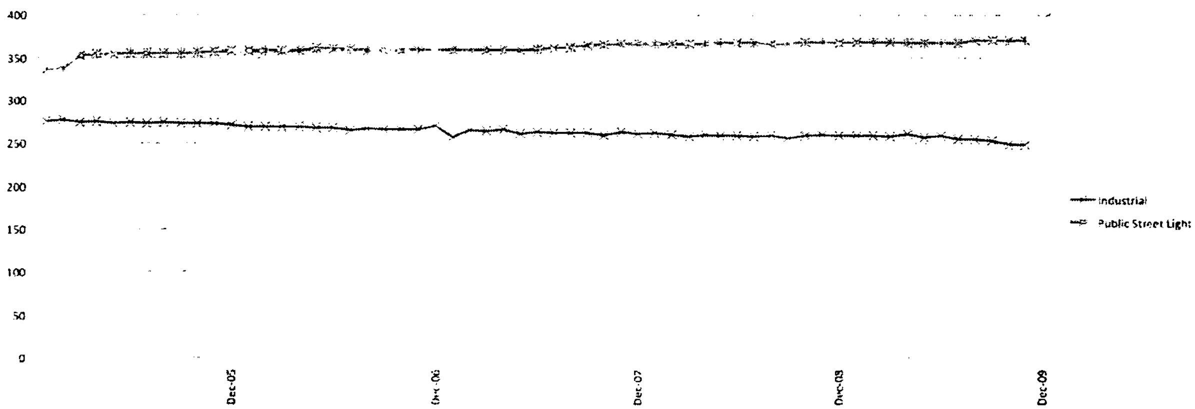
	Rate Schedule	Booked Total Delivery Sales kWh	Total Booked Revenue w/o Tax $	Distribtion Booked Revenue Subject to Increase $	DPL Proposed Distribution Revenue Increase $	STAFF Proposed Distribution Revenue Increase $	STAFF VS DPL Revenue Increase $	STAFF Total Proposed Distribution Revenue W/O Tax $	DPL Total Proposed Distribution Revenue W/O Tax $	STAFF Proposed TOTAL Revenue Increase (%)	DPL Proposed TOTAL Revenue Increase (%)	STAFF Proposed Distribution Revenue Increase (%)	DPL Proposed Distribution Revenue Increase (%)
1	Res	1,914,001,876	279,797,247	61,015,414	12,683,503	11,602,910	-1,080,593	291,400,157	292,480,751	4.15%	4.53%	19.02%	20.79%
2	RSH	1,046,699,524	137,183,770	25,419,732	6,064,288	4,833,907	-1,230,381	142,017,677	143,248,058	3.52%	4.42%	19.02%	23.86%
3	Residential To	2,960,701,400	416,981,017	86,435,145	18,747,792	16,436,817	-2,310,974	433,417,834	435,728,809	3.94%	4.50%	19.02%	21.69%
5	SGS-S	141,837,997	22,130,241	6,934,972	496,567	1,318,779	822,212	23,449,020	22,626,808	5.96%	2.24%	19.02%	7.16%
7	MGS-S	1,143,928,118	122,851,185	21,131,614	1,543,936	4,018,464	2,474,528	126,869,649	124,395,121	3.27%	1.26%	19.02%	7.31%
9	GS-SH	26,818,060	3,011,704	399,654	32,400	76,000	43,600	3,087,703	3,044,104	2.52%	1.08%	19.02%	8.11%
11	GS-WH	839,424	89,373	13,402	1,271	2,548	1,278	91,921	90,643	2.85%	1.42%	19.02%	9.48%
13	TN	N/A	N/A	N/A	53,346	53,346	0	53,346	53,346	N/A	N/A	N/A	N/A
15	ORL	594,906	61,292	17,539	4,936	3,335	-1,601	64,627	66,228	5.44%	8.05%	19.02%	28.15%
17	LGS-S	614,768,699	37,946,441	5,825,565	1,155,695	1,107,810	-47,884	39,054,252	39,102,136	2.92%	3.05%	19.02%	19.84%
19	GS-P	2,592,551,342	48,930,154	16,336,108	3,854,346	3,106,533	-747,813	52,036,687	52,784,499	6.35%	7.88%	19.02%	23.59%
21	GS-T	1,166,162,127	27,620,841	778,820	-265,317	148,103	413,420	27,768,944	27,355,524	0.54%	-0.96%	N/A	-0.96%
23	OL	51,564,945	10,736,205	7,082,063	1,993,515	1,346,751	-646,765	12,082,956	12,729,720	12.54%	18.57%	19.02%	28.15%
25	Total	8,699,767,018	690,358,452	144,954,882	27,618,487	27,618,487	0	717,976,939	717,976,939	4.00%	4.00%	19.05%	19.05%
27				TN direct	53,346								
28				Net to Allocate	27,565,141								

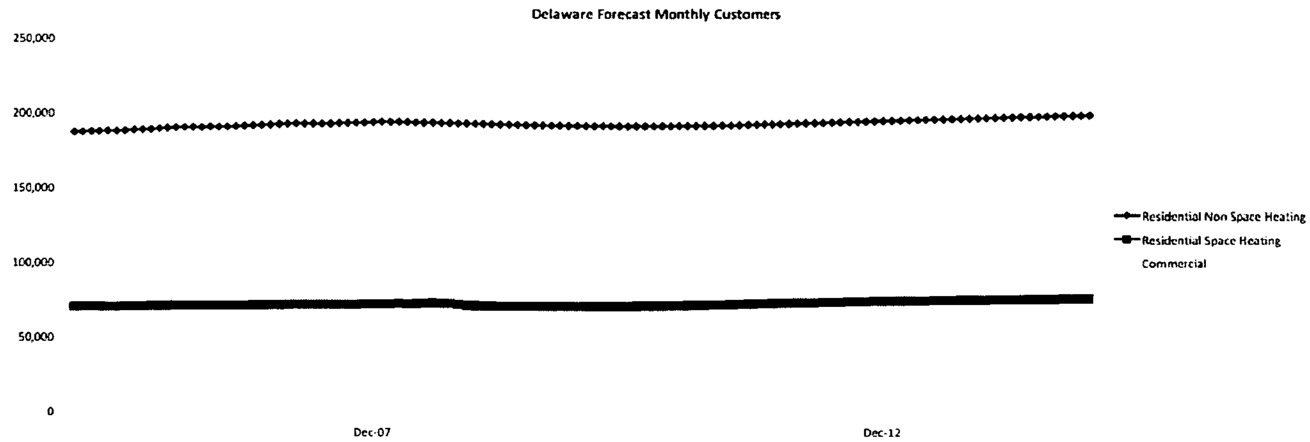
Docket No: 09-414
Witness: Howard Solganick
Exhibit: HS-3

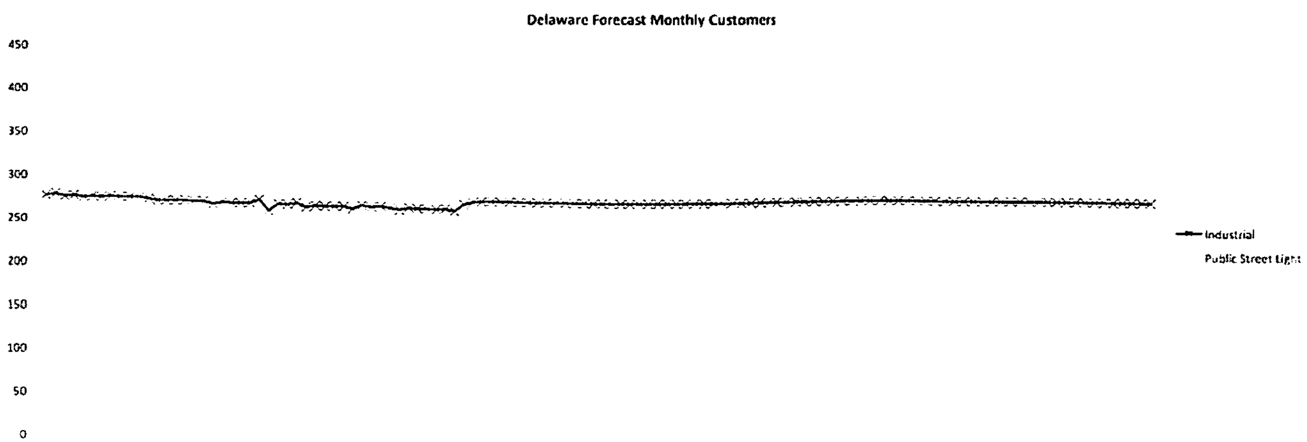
Delaware Actual Monthly Customers



Delaware Actual Monthly Customers




Delaware Forecast Monthly Customers
250,000
200,000
150,000
100,000
50,000
0
Dec-07
Dec-12
Residential Non Space Heating
Residential Space Heating
Commercial


Delaware Forecast Monthly Customers
450
400
350
300
250
200
150
100
50
0
Industrial

Line		Existing Rate Design			Existing Rate Design		Proposed Rate Design			Proposed Rate Design	
		Billing Determinants	Existing Rate	Existing Revenue	Customer Focused Fixed	Externally Influenced Volumetric	Billing Determinants	Proposed Rate	Proposed Revenue	Customer/Dmd Focused Fixed	Externally Influenced Volumetric
		1	2	3	4	5	6	7	8	9	10
1	**Residential ("R")**										
3	Delivery Service										
4	Monthly Customer Charge	2,312,552	7.30	$ 17,020,383	19.71%		2,312,552	17.03708111	$ 39,399,136	37.48%	
6	Distribution Energy Rate	1,912,826,635	0.023009	$ 44,007,826		50.90%					
8	Distribution Demand Contribution Rate						7,919,201	4.33174	$ 34,303,921	32.64%	
10	Total Delivery Service			$ 61,028,009					$ 73,703,057		
12	**Residential Space Heating ("RSH")**										
14	Delivery Service										
15	Monthly Customer Charge	858,147	7.30	$ 6,389,582	7.40%		868,147	18.15603809	$ 15,762,110	15.00%	
17	Distribution Energy Rate	1,046,488,054	0.018066	$ 18,905,853		21.89%					
19	Distribution Demand Contribution Rate						2,947,691	5.29146	$ 15,597,592	14.84%	
21	Total Delivery Service			$ 25,295,415					$ 31,359,702		
23	**Residential Time of Use Non-Demand ("RTOU-ND")**										
25	Distribution Functional Revenue Requirements	49,168									
27	Proposed Customer Charge Recovery	26,283									
28	Proposed Demand/Energy Charge Recovery	22,885									
30	Monthly Customer Charge	1,463	$ 11.32	$ 16,561	0.02%		1,499	$ 17.53	$ 26,283	0.03%	
32	Distribution Energy Rate										
33	On-Peak	465,276	$ 0.039524	$ 18,390		0.02%					
34	Off-Peak	1,086,952	$ 0.004327	$ 4,703		0.01%					
36	Distribution Demand Contribution Rate						5,930	$ 3.858884	$ 22,885	0.02%	
38	Total Delivery Service			$ 39,654					$ 49,168		
40	R-TOU										
42	Delivery Service										
43	Monthly Customer Charge	36	$ 11.32	$ 408	0.00%						
45	Distribution										
46	Demand										
47	Summer-Demand	47	$ 3.916711	$ 184		0.00%					
48	Winter-Demand	91	$ 3.916034	$ 356		0.00%					
50	Distribution Energy Rate	34,483	$ 0.003181	$ 110		0.00%					
52	Distribution Demand Contribution Rate										
54	Total Delivery Service			$ 1,058							
56	**Total Residential Delivery Service Revenue**			$ 86,364,136	27.13%	72.87%			$105,111,926	100.00%	0.00%

	Existing Rate Design			Existing Rate Design		Proposed Rate Design			Proposed Rate Design	
	Billing Determinants	Existing Rate	Existing Revenue	Customer Focused Fixed	Externally Influenced Volumetric	Billing Determinants	Proposed Rate	Proposed Revenue	Customer/Dmd Focused Fixed	Externally Influenced Volumetric
	1	2	3	4	5	6	7	8	9	10
Small General Service - Non Demand ("SGS-ND")										
Monthly Customer Charge	219,139	$ 8.36	$ 1,832,002	25.22%		205,159	$ 13.30	$ 2,728,740	33.65%	
Distribution Energy Rate	141,837,997	$ 0.035037	$ 4,969,578		68.43%					
Distribution Demand Contribution Rate						424,061	$ 10.775354	$ 4,569,407	56.35%	
Total Delivery Service			$ 6,801,580					$ 7,298,147		
General Service Space Heating ("GS-SH")										
Minimum Charge	9,922	$ 4.99	$ 49,511	0.68%		9,922	$ 5.35	$ 53,125	0.66%	
Distribution Energy Rate	26,818,060	$ 0.014702	$ 394,279		5.43%					
Distribution Demand Contribution Rate						63,726	$ 6.638807	$ 423,064	5.22%	
Total Delivery Service			$ 443,790					$ 476,190		
General Service Water Heating ("GS-WH")										
Minimum Charge	1,015	$ 4.99	$ 5,065	0.07%		1,015	$ 5.35	$ 5,435	0.07%	
Distribution Energy Rate	839,424	$ 0.014702	$ 12,341		0.17%					
Distribution Demand Contribution Rate						1,599	$ 8.281075	$ 13,242	0.16%	
Total Delivery Service			$ 17,406					$ 18,677		
Telecommunications Network Service ("TN")										
Monthly Customer Charge	17,136	$ -	$ -	0.00%		17,136	$ 15.81	$ 270,920	3.34%	
Distribution Energy Rate	6,930,002	$ -	$ -		0.00%	6,930,002	$ 0.006538	$ 45,308	0.56%	
Total Delivery Service			$ -					$ 316,229		
Total Small General Delivery Service			$ 7,262,776	25.98%	74.02%			$ 8,109,242	100.00%	0.00%
Medium General Service - Secondary ("MGS-S")										
Monthly Customer Charge	152,707	$ 25.42	$ 3,881,812	18.36%		149,551	$ 56.73	$ 8,484,257	37.39%	
Distribution Demand	3,901,117	$ 3.654078	$ 14,254,987		67.41%					
Distribution Energy Rate	1,143,928,118	$ 0.002632	$ 3,010,819		14.24%					
Distribution Demand Contribution Rate						3,432,812	$ 4.138676	$ 14,207,298	62.61%	
Total Medium General Delivery Service			$ 21,147,618	18.36%	81.64%			$ 22,691,555	100.00%	0.00%

		Existing Rate Design			Existing Rate Design		Proposed Rate Design			Proposed Rate Design	
		Billing Determinants	Existing Rate	Existing Revenue	Customer Focused Fixed	Externally Influenced Volumetric	Billing Determinants	Proposed Rate	Proposed Revenue	Customer/Dmd Focused Fixed	Externally Influenced Volumetric
		1	2	3	4	5	6	7	8	9	10
120	**Large Gerneral Service - Secondary ("LGS-S")**										
122	Monthly Customer Charge	4,819	$ 159.62	$ 769,209	3.37%		4,819	$ 235.14	$ 1,133,158	4.11%	
124	Distribution Demand	1,552,950	$ 2.407000	$ 3,737,951		16.37%					
126	Distribution Energy Rate	614,758,699	$ 0.002120	$ 1,303,310		5.71%					
128	Distribution Demand Contribution Rate						1,369,226	$ 4.260077	$ 5,833,007	21.15%	
130	**Total Large General Service**			$ 5,810,470					$ 6,966,165		
133	**General Service Primary ("GS-P")**										
135	Monthly Customer Charge	6,149	$ 235.42	$ 1,447,595	6.34%		6,149	$ 658.46	$ 4,048,858	14.68%	
137	Distribution Demand	5,720,121	$ 2.624797	$ 15,014,156		65.75%					
139	Distribution Demand Contribution Rate						5,468,259	$ 2.974849	$ 16,267,244	58.98%	
141	**Total General Service Primary**			$ 16,461,754					$ 20,316,102		
144	**General Service Transmission ("GS-T")**										
146	Monthly Customer Charge	108	$ 2,732.31	$ 295,089	1.29%		108	$ 2,758.33	$ 297,899	1.08%	
148	Distribution Demand	2,627,281	$ 0.102055	$ 268,127		1.17%					
150	**Total General Service Transmission**			$ 563,216					$ 297,899		
153	**Total Large General Delivery Service**			$ 22,835,440	11.00%	89.00%			$ 27,580,166	100.00%	0.00%

Docket No: 09-414
Witness: Howard Solganick
Exhibit: HS-6

PSC-A-4

Delmarva Power & Light Company
Delaware Weather Corrected Sales & Revenues
30 Year Weather Correction
12 Months Ending March 31, 2009

(1) Line No.	(2) Item	(3) R	(4) RSH	(5) COM	(6) IND	(7) SL	(8) TOTAL
1	Delivered Sales(Kwh)	1,915,883,462	1,046,994,553	3,535,587,802	2,163,341,056	37,960,145	8,699,767,018
2							
3	**Booked Revenue**						
4	Distribution	$61,307,992	$25,453,055	$54,565,934	$10,121,453	$5,409,866	$ 156,858,300
5	Transmission	$10,881,606	$4,055,479	$5,871,488	$749,994	$0	$ 21,558,567
6	Generation (SOS)	$207,607,650	$107,675,235	$162,117,622	$31,946,948	$2,594,129	$ 511,941,585
7							
8	Total	$279,797,247	$137,183,770	$222,555,044	$42,818,395	$8,003,996	$690,358,452
9							
10	**Average Rates**						
11	Distribution	3.20	2.43	1.54	0.47	14.25	
12	Transmission	0.57	0.39	0.17	0.03	0.00	
13	Generation (SOS)	10.84	10.28	4.59	1.48	6.83	
14							
15	Weather Corrected Delivered Sales (Kwh)	1,880,639,198	947,144,014	3,494,249,926	2,163,341,056	37,960,145	8,523,334,339
16							
17	**Weather Corrected Revenue**						
18	Distribution	$60,180,181	$23,025,629	$53,927,953	$10,121,453	$5,409,866	$152,665,082
19	Transmission	$10,681,429	$3,668,713	$5,802,839	$749,994	$0	$20,902,975
20	Generation (SOS)	$203,788,535	$97,406,385	$160,222,153	$31,946,948	$2,594,129	$495,958,151
21							
22	Total	$274,650,145	$124,100,728	$219,952,944	$42,818,395	$8,003,996	$669,526,208
23							
24	**Variance From Booked Revenue**						
25	Distribution	($1,127,811)	($2,427,425)	($637,982)	$0	$0	($4,193,218)
26	Transmission	($200,176)	($386,766)	($68,649)	$0	$0	($655,591)
27	Generation (SOS)	($3,819,115)	($10,268,850)	($1,895,469)	$0	$0	($15,983,434)
28							
29	Total	($5,147,102)	($13,083,042)	($2,602,100)	$0	$0	($20,832,244)
30							
31	CALCULATIONS ADDED BELOW				CALCULATIONS ADDED BELOW		
32							
33	WEATHER CORRECTION (KWH)	(35,244,264)	(99,850,539)	(41,337,876)	0	0	(176,432,679)
34							
35	Distribution Energy Rate	0.023009	0.018066				
36							
37	**Variance From Booked Revenue**						
38	Distribution	(810,935)	(1,803,900)	TBD			
39							